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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,475	09/21/2004	Herbert A. Bankstahl	ITW7510.088	5474

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EXAMINER	
NGUYEN, PHUONGCHI T	
ART UNIT	**PAPER NUMBER**
2833	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H-A

Office Action Summary	Application No.	Applicant(s)	
	10/711,475	BANKSTAHL, HERBERT A.	
	Examiner	Art Unit	
	Phuongchi Nguyen	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-109* is/are pending in the application.

4a) Of the above claim(s) *16-105 and 109* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 106-108* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/21/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAIL ACTION

1. Applicant's amendment of October 6, 2005 is acknowledged. It is noted that specie 2 (group I) (Figures 2C and 2D), claims 1-15, 19-22, 24-37, 61-67, 70-81, 85-96, 99 and 101-108 has been selected.

2. The traversal of Species 1 and 3-8, claims 16-105 and 109 on the grounds that all claims are consistent with product claims are not found persuasive and the claims are still subject to restriction. In the instant case, as previously stated the following patentably distinct species of the claimed invention:

- specie 1 (Figures 1-12), claims 1-19; species 2 does not have a channel on the stem portion.
- specie 2 (Figures 13-17), claims 1-15 and/or 106-108.
- specie 3 (No Figure) (see page 17, [Para 56]), claims 19-41; species 2 does not have a device adapter.
- specie 4 (No Figure) (see page 17, [Para 58]), claims 42-46; species 2 does not have a surface area of the first engagement portion to be less than a surface area of the second engagement portion.
- specie 5 (No Figure) (see page 17, [Para 59]), claims 47-60; species 2 does not have receiving a first internal profile and a second internal profile and forming a plug with a first external profile constructed to pass the second internal profile of the receiver.
- specie 6 (No Figure) (see page 18, [Para 60]), claims 61-69; species 2 does not have the connecting the receiving means to a power source.

- specie 7 (No Figure) (see page 18, [Para 61]), claims 70-84; species 2 does not have the output connector to generate a power signal.
- specie 8 (No Figure) (see page 17, [Para 57]), claims 85-105 and 109; species 2 does not have the stud.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different sub classifications, restriction for examination purposes as previously indicated is proper.

Claims 16-105 and 109 are still withdrawn from further consideration by the examiner, 37 CFR 1. 142(b), as being drawn to a non-elected invention.

The requirement is still deemed proper and is therefore made FINAL.

Therefore, Claims 1-15 and 106-108 will be examined on the merit.

Drawings

3. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish the drawings for species 3-8. under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-7, 11-12 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by C.H. Stevens, Jr. (US2742622- herein after referred to as Stevens).

In regards to claim 1, Stevens discloses a high-power quick connector assembly comprising a first connector (12) having a stem portion (36) and a collar portion (18) (figure 5) connectable to a cable (16), the stem portion (36) having a shank end (of 30) and a threaded end (40, 42); and a second connector (10) having a recess (formed inside 62) formed therein, the recess (formed inside 62) constructed to receive the stem portion (30) of the first connector (12) and engage the shank end (of 30) and the threaded end (40, 42) (figure 1).

In regards to claim 2, Stevens discloses the high-power quick connector assembly wherein the stem portion (36) of the first connector (12) further comprises a pair of planar surfaces (36, 38) (col. 2, lines 34-37) truncating opposing sides of the stem portion (30).

In regards to claim 3, Stevens discloses the high-power quick connector assembly wherein the first connector (12) is rotatable relative to the second connector (10).

In regards to claim 4, Stevens discloses the high-power quick connector assembly wherein the first connector (12) is rotatable relative to the second connector (10) by approximately 90 degrees, (the first 12 and second 10 connectors can rotate from 1^0 to 180^0).

In regards to claim 6, Stevens discloses the high-power quick connector assembly wherein the second connector (10) further comprises a threaded section (68, 70) formed about a distal end of the recess (formed inside 62) (figure 1).

In regards to claim 7, Stevens discloses the high-power quick connector assembly wherein the recess (formed inside 62) of the second connector (10) further comprises a generally

circular section (62) constructed to receive the shank end (of 30) of the first connector (12) (figure 1).

In regards to claim 11, Stevens discloses the high-power quick connector assembly further comprising at least one shoulder (1st thread of 30) extending about the shank end (of 30) of the stem portion (30) of the first connector (12).

In regards to claim 12, Stevens discloses the high-power quick connector assembly wherein the recess (formed inside 62) of the second connector (10) has a groove (1st groove forming by a 1st thread 68, 70 formed inside 62) formed there about constructed to engage the at least one shoulder (1st thread 40, 42 of 30) of the shank end (of 30) of the first connector (12) (figure 3).

In regards to claim 14, Stevens discloses the high-power quick connector assembly wherein at least one shoulder (1st thread of 30) of the stem portion (30) of the first connector (12) mechanically and electrically connects to the second connector (10) and the threaded end (40, 42) of the stem portion (30) of the first connector (12) mechanically and electrically connects to the second connector (10) (figure 1).

In regards to claim 15, Stevens discloses the high-power quick connector assembly wherein the recess (formed inside 62) of the second connector (10) further comprises a thread portion (68, 70) having at least one channel (entrance hole) formed thereacross, the at least one channel (entrance hole) constructed to allow the at least one shoulder (1st thread of 30) to pass there through (figure 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over C.H. Stevens, Jr. (US2742622- herein after referred to as Stevens) in view of Double (US3736548).

In regards to claim 8, Stevens discloses the high-power quick connector assembly wherein the first connector (12) is attached to a cable (16) and the second connector (10) is rigidly attached to the device (another mating device). Stevens discloses the invention substantially general as claimed, but lacks a welding cable. However, Double teaches a weld cable (col. 8, line 7-8). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector cable of Stevens by having a welded cable as taught by Double for increasing the connection between the cable and the quick connector assembly.

In regards to claim 10, Stevens discloses the invention substantially general as claimed, but lacks to disclose the level of temperature and the amount of flow current. It would have been obvious to one having ordinary skill at the time the invention was made to provide on the connector assembly of Stevens a temperature change of less than approximately 40 degrees when subjected to a current of approximately 700 amps to prevent overheating.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over C.H. Stevens, Jr. (US2742622- herein after referred to as Stevens) in view of Double (US3736548) applied as claim 1 above, and further in view of G.L.Pope (US3297975- herein after referred to as Pope) or EP241121A2.

In regards to claim 5, Stevens discloses the invention substantially general as claimed, but lacks a plurality of threaded holes formed in the collar portion. However, Pope teaches a threaded hole (71) is formed in the collar portion of the first connector (22) (figure 2 of Pope) or the thread hole with the thread (adjacent to reference numeral 14)(figure 1 of EP241121). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector assembly of Stevens by having a thread hole in the first connector body as taught by Pope/EP241121 for securing the collar of the first connector to the outer housing of the connector assembly.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over C.H. Stevens, Jr. (US2742622- herein after referred to as Stevens) in view of Double (US3736548) applied as claim 1 above, and further in view of G.W.Lecocq (US3491329).

In regards to claim 9, Stevens discloses the invention substantially general as claimed, but lacks of connector being constructed by a tellurium copper material. However, G.W.Lecocq teaches the socket connector is constructed from at least one of a tellurium copper material (col. 3, lines 31-32). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector assembly of Stevens by having one of the connector being constructed by a tellurium copper material as taught by G.W.Lecocq for increasing conductivity in the connector.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over C.H. Stevens, Jr. (US2742622- herein after referred to as Stevens) in view of Double (US3736548) applied as claim 11 above, and further in view of EP241121A2.

In regards to claim 13, Stevens discloses the high-power quick connector assembly wherein the recess (formed inside 62) of the second connector (10) has a first diameter (1st diameter is on 10, which is corresponding to the 1st thread of 30) similar to a diameter proximate the at least one shoulder (1st thread of 30) of the shank end (of 30) of the first connector (12), a second diameter (2sd thread of 30) is similar to a diameter (of 1st thread) of the thread end (of 30) of the stem portion (30) of the first connector (12) (figure 1). Stevens discloses the invention substantially general as claimed, but lacks the first diameter of the recess being greater than the second diameter of the recess. However, EP241121 teaches the first diameter (inner side walls of 26) of the recess (26) is greater than the second diameter (forming by inner side of protrusion 28 and opposite side wall of 26) of the recess (26) (figures 3 and 4). It would have been obvious to one having ordinary skill at the time the invention was made to provide on the connector assembly of Stevens the first diameter of the recess being greater than the second diameter of the recess as taught by EP241121 for guiding and locking the second connector into the first connector.

9. Claims 106-108 are rejected under 35 U.S.C. 103(a) as being unpatentable over G.W.Lecocq (US3491329- herein after referred to as Lecocq).

In regards to claim 106, Lecocq discloses a quick-connect connector assembly comprising a first connector (10) electrically connectable to a second connector (18); at least one of the first (10) and the second connector (18) are constructed from a material having an electrical conductivity made copper and having a machine-ability of brass (col. 3, lines 31-32 and/or 34-35). Lecocq discloses the invention substantially general as claimed, but lacks to disclose the amount of copper and brass materials on the connectors. It would have been obvious

to one having ordinary skill at the time the invention was made to provide on the connector assembly of Lecocq the amount of copper such as 80% and brass materials such as 75% on the connectors for the purpose of the user needed; since the amount of copper and brass materials are to increases the conductivity in the connectors.

In regards to claim 107, Stevens discloses the invention substantially generally as claimed, but lacks the material has a yield strength of at least 40 Kpsi. It would have been obvious to one having ordinary skill at the time the invention was made to provide on the connector assembly of Lecocq the material having yield strength of at least 40 Kpsi for greater durability.

In regards to claim 108, Stevens discloses the quick connect connector assembly wherein the first connector (12) rotatably engages the second connector (10) from an insert position to a fully engaged position in less than approximately 180 rotational degrees from the insert position.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is (571) 272-2012. The examiner can normally be reached on 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PCN

October 21, 2005

GARY F. PAUMEN
PRIMARY EXAMINER